

LIFESTYLE AND BEHAVIOURAL CHANGES OF ADOLESCENTS DURING PANDEMIC PERIOD

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Abstract

The COVID-19 had an impact on people's social interaction and has brought changes to education, environment and economy. The whole world is under the effects of the COVID-19 pandemic, which has put all nations in a unique lockdown situation to contain the disease. This unexpected lockdown has taken a toll on humans' mental health. The effects of lockdown can affect the school as well as college students due to fear, anxiety and stress. This study intends to assess the adolescents' lifestyle and behavioural changes during Covid-19. The student's Perception Scale was developed by the investigators. Survey method was employed to determine the perception of 120 students towards their life style and behavioural changes during Covid-19. The present study was conducted using an online survey and its designated link was distributed through social media. The findings of the study concluded that there is no significant difference in perception towards lifestyle and behavioural changes with respect to gender, age and type of family. The findings of the study further revealed that the type of institution has a significant effect on students' perceptions of behavioural changes.

Keywords: COVID 19, Perception, Life Style, Behavioural Changes, Online Survey.

Introduction

Over the past few decades, new infectious diseases have emerged and played a key role in changing the behaviour and lifestyle of all age groups. More recently, with the emergence of the Coronavirus (COVID-19) pandemic, governments around the world have made unprecedented efforts to contain the epidemic by implementing quarantine measures, social distancing, and isolating infected individuals. Social behavioural adaptations (e.g., social distancing, isolation, etc.) impact children's and adolescents' lifestyle activities that lead to increased incidence of psychosocial problems, worsening of pre-existing mental illness, fear of infection, uncertainty, isolation, and stress. In this view, the researchers aimed to study the adolescents' lifestyles and behavioural changes during COVID-19.

Need for the Present Study

The pandemic due to Coronavirus disease (COVID-19) affects the adolescents directly or indirectly and has been impacted on adolescents' social, emotional and

mental well-being. A traumatic event such as excessive worry or sadness, unhealthy eating or sleeping habits, difficulty with attention and concentration are related to stress and these can be overwhelmed on adolescents. The lifestyle of students and their behaviour was changed during the pandemic period. A huge change is observed in the students' behaviour after the lockdown. The teachers and professors can feel these changes in their classrooms. The home-schooling system during the COVID-19 lockdown has developed a tendency to expose in unhealthy eating habits and in-person human interaction. The unhealthy eating and in-person human interaction may be due to lower outdoor activities that created anxiety, stress, depression, panic, irritation, impulsivity, somatization, sleep problems, emotional lability, post-traumatic stress disorder (PTSD), and suicidal thoughts. Hence, the researcher has chosen this study to understand the psychological changes of their students and find out the reason for the changes in the adolescents and behaviour.

Review of Related Studies

Annam S, et al. (2022) conducted a study on the impact of COVID-19 on the behaviours and attitudes of children and adolescents. A total of 189 male and 134 female children's parents or carers took part in their study. They observed that the consumption of fast food and fried foods by children and adolescents increased significantly during COVID-19. In their study, out of 323 participants, almost all (289, 89.5%) had increased their screen time significantly. Nearly half of the total individuals experienced the feeling of depression and loneliness during the pandemic. Additionally, some children and adolescents felt fearful when leaving home. Also they suggested that the COVID-19 lockdowns have led to many changes in children's and adolescents' lifestyle habits. The children's and adolescents' physical contact with others reduced due to the fear of transmission of COVID-19.

Xiang, M., et al (2022) investigated the association of changes in lifestyle behaviours in children and adolescents before and during the COVID-19 pandemic with mental health. The findings of the studies are that the comparison to students with persistently short screen time before and during the COVID-19 pandemic, those with prolonged screen and those with persistently long screen time reported a higher risk of psychological symptoms. The association between changes in physical activity and psychological symptoms was not statistically significant after adjustment for demographic factors, socioeconomic status, and screen time.

Androutsos, O., et al. (2021) studied that the children's/adolescents' sleep duration and screen time increased, while their physical activity decreased during the lockdown. In the same days, their consumption of fruits and fresh fruit juices, vegetables, dairy products, pasta, sweets, total snacks, and breakfast increased, while fast-food consumption decreased. Body weight also increased around 35% of children/adolescents. A multiple regression analysis showed that the body weight increase was associated with increased consumption of breakfast, salty snacks, and total

snacks and with decreased physical activity. The COV-EAT study revealed changes in children's and adolescents' lifestyle behaviors during the first COVID-19 lockdown in Greece.

Malta, D. C. et.al. (2021) made a study on the changes in the lifestyles of Brazilian adolescents during the COVID-19 pandemic. A total of 9,470 adolescents participated in their study. The findings are that during the period of social distancing, there was an increase in the prevalence of vegetables consumption (from 27.34 to 30.5%), frozen foods (from 13.26 to 17.3%), chocolates and sweets (from 48.58 to 52.51%), and time in front of screens (from 44.57 to 70.15%). On the other hand, there was a decrease in the practice of physical activity (from 28.70 to 15.74%) and in the consumption of alcohol (from 17.72 to 12.77%) with regard to gender and age group.

Allabadi, et al. (2020) examined the impact of COVID-19 lockdown on dietary and lifestyle behaviours among adolescents in Palestine. The major findings are that there was an increase in weight gain, food intake, and consumption of non-nutritional foods, screen time and sleeping hours as well as a decrease or lack of physical activity in comparison to before the lock down. Weight gain was independently associated with increased food intake.

Dragun, R., et.al (2020) made a study on lifestyle habits and psychological well-being change among adolescents and medical students due to COVID-19 Lockdown in Croatia. They found no substantial differences in dietary pattern between pre-lockdown and lockdown periods, including the overall Mediterranean diet (MD) adherence. However, the MD pattern changed, showing increased adherence to the MD pyramid for fruit, legumes, fish, and sweets, while cereals, nuts, and dairy intake decreased during COVID-19 lockdown. One third of students reported weight loss during lockdown, 19% reported weight gain, while physical activity remained rather stable. The most prominent change was feeling refreshed after a night's sleep, reported by 31.5% of students during lockdown vs. 8.5% before; median length of sleep duration increased by 1.5 h. Lockdown significantly affected quality of life, happiness, optimism (all $p < 0.001$), and perceived stress in students ($p = 0.005$). MD adherence was positively correlated with quality of life and study time and negatively with TV and mobile phone use in pre-lockdown period (all $p < 0.001$). Interestingly, higher MD adherence was correlated with less perceived hardship and greater happiness and quality of life during lockdown.

Francisco R, et.al. (2020) carried out a research on psychological symptoms and behavioural changes of children and adolescents during the early phase of COVID-19 quarantine in three European Countries. Their results revealed that an increase in children's psychological and behavioural symptoms, increased screen-time, reduced physical activity, and more sleep hours/night. Italian children presented less psychological and behavioural symptoms compared with Portuguese and Spanish children. In general, hierarchical multiple regressions revealed that having an outdoor exit in the house (e.g., garden, terrace) contributed to lower levels of psychological and behavioural symptomatology.

Based on the entire studies on adolescent life style and behavioural changes, the researchers have taken this investigation. The review related to the present study gave the direction to pursuing the frame of objectives and hypotheses. Also, it helped to design the study and to finalise the statistical techniques. The present study is a unique in terms of the area, sample and variables compared to the previous work done by the various researchers.

Methodology

Objectives of the Study

The objectives of the study are as follows:

1. To find out whether there is any significant difference in the lifestyle of adolescents during COVID-19 with regard to some selected variables such as gender, age and type of family.
2. To find out whether there is any significant difference in the lifestyle of adolescents during COVID-19 with regard to the type of institution.
3. To find out whether there is any significant difference in the behavioural changes of adolescents during COVID-19 with regard to some selected variables such as gender, age and type of family.
4. To find out whether there is any significant difference in the behavioural changes of adolescents during COVID-19 with regard to the type of institution.

Hypotheses of the Study

1. There is no significant difference between male and female adolescents' life styles during COVID-19.
2. There is no significant difference between the ages of below 20 and above 20 adolescents' life styles during COVID-19.
3. There is no significant difference between nuclear and joint-family adolescents' life styles during COVID-19.
4. There is no significant difference among Engineering, Arts & Science and B.Ed college adolescents' in their life styles during COVID-19.
5. There is no significant difference between male and female adolescents' in their behavioural changes during COVID-19.
6. There is no significant difference between the ages of below-20 and above-20 adolescents' in their behavioural changes during COVID-19.
7. There is no significant difference between nuclear and joint-family adolescents' in their behavioural changes during COVID-19.
8. There is no significant difference among Engineering, Arts & Science and B.Ed college adolescents' in their behavioural changes during COVID-19.

Design of the Study

Method: A descriptive survey method was used to collect the data.

Population and Sample: The present study was conducted using an online survey platform and its designated link was distributed through social media. A web-based survey was conducted targeting adolescents aged 18-24 years. The population of the study includes Engineering, Arts & Science and B.Ed students. A sample of 120 students was randomly selected.

Tools Used: The students' perception on COVID-19 scale was developed by the investigators. It was used to collect the data through a web-based survey using Google Forms. The scale had 48 items which have been distributed in four areas i.e., awareness, lifestyle, behavioural changes and academic. The scale was three-point scale viz. yes, sometimes and no. Each item carried the weightage of 3, 2, and 1 respectively.

Statistical Techniques Used: Mean, SD, t-test and F-test were used.

Data Analysis

The investigators used the mean, standard Deviation, t-test and F-test for analyzing the data. The collected data have been analyzed and the results are tabulated below.

Table 1 Difference between Adolescents in their Lifestyle with Regard to Gender, Age and Type of Family

Personal variables	Categories	N	Mean	S.D	Calculated 't' value	Remarks
Gender	Male	27	29.70	5.348	0.698	NS
	Female	93	28.99	4.481		
Age	Below 20	21	29.43	4.643	0.302	NS
	Above 20	99	29.09	4.704		
Type of Family	Nuclear	91	29.35	4.658	0.836	NS
	Joint	29	28.52	4.756		

NS-Not Significant Table value of 't' is 1.96 for df 2 of 118, at 5% level of significance

Table 2 Difference between Adolescents in their Behavioural Changes with Regard to Gender, Age and Type of Family

Personal variables	Categories	N	Mean	S.D	Calculated 't' value	Remarks
Gender	Male	27	25.74	5.178	.368	NS
	Female	93	25.34	4.851		
Age	Below 20	21	25.90	5.504	.483	NS
	Above 20	99	25.33	4.796		
Type of family	Nuclear	91	25.38	5.202	.222	NS
	Joint	29	25.59	3.914		

NS-Not Significant Table value of 't' is 1.96 for df 2 of 118, at 5% level of significance

Table 3 Difference among Engineering, Arts & Science and B.Ed College Adolescents in their Lifestyle and Behavioural Changes

Dimensions of Students perception	Source of variance	Sum of squares	MSV	F-value	Remarks
Life style	Between	67.801	33.900	1.566	NS
	Within	2533.499	21.654		
Behavioural changes	Between	254.213	127.106	5.695	S
	Within	2611.254	22.318		

*S- Significant, NS-Not Significant*df (2, 118), the table value of 'F' is 2.76

Results and Discussions

Table 1 reveals that there are no significant differences between adolescents in their lifestyle with regard to gender, age and type of family during COVID-19.

Table 2 reveals that there are no significant differences between adolescents in their behavioural changes with regard to gender, age and type of family during COVID-19.

Table 3 reveals that there are significant differences among adolescents in Engineering, Arts & Science and B.Ed colleges in their lifestyle and behavioural changes.

The Waller Duncan test shows that the adolescents' studying in Engineering Colleges had more behavioural changes during COVID-19 than their counterparts. The reason may be that people of this age prefer to love of their friends rather than their parents. During the sudden lockdown, they were stressed due to the unfriendly environment. Hence, the period of pandemic increased the levels of anxiety, depressive moods, lack of self-esteem, psychosomatic problems, substance abuse and sleeping problems.

Recommendations and Conclusion

The COVID-19 pandemic has had a major impact on the lifestyle and behaviours of adolescents. Adolescents are less affected by COVID-19 directly but suffer indirect, potentially long-term health consequences due to changes in lifestyle, eating behaviour, physical activity, sleep patterns, and mental well-being. Governments around the world have imposed social distancing, leading to adverse short-term and long-term negative mental health issues such as unhappiness, fear, worry, irritability, depressive symptoms, anxiety, etc.

Parents must take care of their children and develop positive mental attitudes to support them. Interventions should focus on building resilience in adolescents and addressing their fears and concerns through better communication, encouraging routine and physical activity, and taking measures to alleviate loneliness. Even with social distancing, social interaction is important, possibly on a daily basis. However, the video conferencing, phone calls, or real-time texting may be worth considering.

The parents, healthcare professionals, and policymakers must encourage the adolescents to seek relief from their impact on lifestyles and behaviours due to the COVID-19 pandemic and put appropriate measures in place to counter them. It is suggested that this study can be extended to investigate the nature of these impacts and to draw strategies to cope with their consequences and promote physical and mental health in this age group.

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Statements and Declarations

Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability statements

The data are, however, available from the authors upon reasonable request